

# ROTEL *hifi*

STEREO CONTROL AMPLIFIER

## RC-870BX

# owners manual

使用説明書

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#### WARNING

TO PREVENT FIRE OR SHOCK HAZARD,  
DO NOT EXPOSE THIS APPLIANCE  
TO RAIN OR MOISTURE

Write your SERIAL NUMBER here.  
The number is located near the name  
plate on the rear panel.

# ENGLISH

## STEREO CONTROL AMPLIFIER RC-870BX

### INTRODUCTION

We at Rotel want to thank you for purchasing our audio product.

Rotel audio products are designed to use the latest electronic technology, and they incorporate our long experience as a specialist manufacturer of audio equipment. We are confident that you will find satisfaction in the high quality sound and top performance, and that you will find pleasure in the functional beauty achieved through human-engineering concept. Before starting operation, please read this instruction manual thoroughly and acquaint yourself with the proper mode of using the unit and all its connections.

We hope you will enjoy top-notch performance for many years to come.

### BEFORE ENJOYMENT/POWER SUPPLY

Follow the instructions below for maximum safety:

#### 1. Use a wall outlet for power supply

Be sure to connect the AC line cord to a house-hold wall outlet. Be certain that the outlet voltage matches the electrical rating of the unit, found on the rear panel name plate.

#### 2. Connecting and removing AC cord

Be sure to connect or disconnect the AC line cord only after turning off the power switch to prevent possible shock noise or damage to the speakers.

#### 3. Ventilate the unit well

Never block any ventilation holes at the top and bottom of the unit. Be sure also to provide ample ventilation space around the unit. Poor ventilation may result in damage due to excessive heat.

#### 4. Do not open the cabinet

In order to avoid electric shock or damage to the component, never open the cabinet. If a foreign object falls inside the unit by mistake, turn the power off, disconnect the wall plug, and consult a qualified electrician or your dealer.

#### 5. Installation

Be sure to place the unit in a level and flat place where it is free from humidity, vibration, high temperature and not exposed to direct sunlight.

Be careful not to place the unit in a highly enclosed place such as near a wall or on a bookshelf. A poor ventilation will cause undesirable effects to the unit.

#### 6. Moving the unit

When transporting, remove the AC cord from the wall outlet and all other connected cords on the rear panel to prevent wire breakage and short circuits.

#### 7. If the unit gets wet

If the unit should get wet, immediately disconnect the AC cord, and consult your dealer or a qualified electrician.

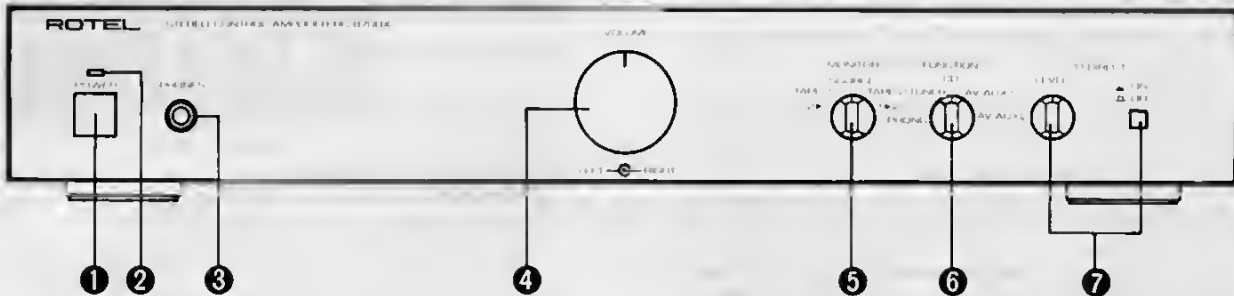
#### 8. Cleaning and maintenance

Do not use chemicals such as benzine or thinners on the front panel. Always use a soft, dry cloth to clean the unit.

#### 9. Owner's manual

Keep the owner's manual near the unit, and record the serial number (found on the rear panel) on the cover.

**Caution (applicable to the U.S.A., Canada, Hong Kong, and Southeast Asia):** On the rear panel of the RC-870BX are two sets of AC outlet through which power is supplied to audio equipment (turntable, CD player, tuner, cassette deck, etc.) you use in conjunction with the RC-870BX. Each AC outlet is the switched type, turned on or off upon switching on or off the power in the RC-870BX and has rating of 400 watts maximum. Do not attempt to connect equipment whose power consumption exceeds the rating of these AC outlets. Never connect a power amplifier to these AC outlets.



Be sure to set this selector to **SOURCE** when listening to a source selected by the Input selector.

#### (6) Function Selector

Select the program source to play or record.

**PHONO:** Turntable connected to the PHONO terminals.

**CD:** CD player connected to the CD terminals.

**TUNER:** Tuner connected to the TUNER terminals.

**AV/AUX 1, AV/AUX 2:** Video cassette recorder or video disc recorder connected to the AV/AUX 1 or AV/AUX 2 terminals. Use this selector with the Tape Monitor selector at the **SOURCE** position.

#### (7) CD Direct ON/OFF Switch and Level Control

This unit is designed so that you can enjoy the high quality sound of the compact disc with no deterioration. By depressing the switch to **ON**, the signals from the CD player are sent to the power amplifier directly. In this case, the Volume Control of this unit cannot operate, but the volume of the CD sound can be adjusted with the **LEVEL** control. Try enjoying the excellent sound with the **CD DIRECT** function.

With the switch at the released **OFF** position, the signals flow as usual and the Volume Control operates although the **LEVEL** control does not function.

### OPERATION

- Before commencing operation, check to see if all connections are properly made.
- Always be sure to set the volume control to the minimum position before turning on power.
- When listening to a compact disc with the **CD DIRECT** switch at the **ON** position, be sure to turn the **LEVEL** control completely to the left before turning the power switch to **ON**.

#### Listening from turntable

1. Set Tape Monitor selector to **SOURCE**.
2. Select **PHONO** on the function selector.
3. Start playing turntable, and raise the volume to the desired level.

#### Playing a compact disc

##### • Playing in the direct signal path mode

1. Set the Tape Monitor selector to **SOURCE**.
2. Select **CD** on the function selector.
3. Set the **CD DIRECT** switch to **ON**.
4. Start playing the compact disc and adjust the volume with the **LEVEL** control.

##### • Playing in the normal signal path mode

1. Set the Tape Monitor selector to **SOURCE**.
2. Select **CD** on the function selector.
3. Set the **CD DIRECT** switch to **OFF**.
4. Start playing the compact disc and raise the volume to the desired level with the **VOLUME** control.

#### Radio broadcast reception

1. Set the Tape Monitor selector to **SOURCE**.
2. Select **TUNER** on the function selector.
3. Tune in the desired station on the tuner and raise the volume to the desired level.

#### Playing back tape deck

1. Set Tape Monitor selector to **TAPE 1** or **TAPE 2** position according to the tape deck you are going to play back.
2. Start playback.
3. Raise the volume to the desired level.

#### Recording program source

Play the desired program source according to the procedures mentioned above. The signal from the source will be sent through **TAPE OUT** terminals on unit's rear panel.

Put the tape deck in the record mode to record the signal. During recording, operation of Volume control, and Tone control will have no effect on the signal being sent through **TAPE OUT** terminals.

**Note:** When playing a compact disc in the direct signal path mode, the signal will not be sent to **TAPE OUT** terminals but only to the speaker terminals, and so cannot be recorded.

#### Dubbing

By connecting two tape decks, dubbing (tape-to-tape copying) of prerecorded tapes can be performed. The unit allows two modes of dubbing: from **TAPE 1** to **TAPE 2** deck, and **TAPE 2** to **TAPE 1** deck.

1. Set Tape Monitor selector to "**1**►**2**" or "**2**►**1**".
2. Play back **TAPE 1** (or **TAPE 2**) deck, and put **TAPE 2** (or **TAPE 1**) deck in record mode, then dubbing starts. During this operation, you can listen to the signal with Volume control or Balance control set as desired; they have no effect on the signal to be recorded.

### PLAYBACK AND RECORDING WITH AV EQUIPMENT

The RC-870BX permits connection and switching of audio-visual components, so that the receiver can be used as an AV control center.

There are one set of inputs for a stereo AV component such as a video disc player and one set of inputs/outputs for a stereo video recorder. There is also a separate TV monitor output for connection of a color monitor for high quality viewing.

This system then not only provides for easy selection of video sources, but also allows high performance operation for optimal sound quality such as digital sound from a Hi-Fi video recorder.

In addition, sound track of video components can be dubbed onto a tape recorder connected to the receiver, or vice versa. Video dubbing is also possible from **AV/AUX 1** to **AV/AUX 2**.

#### Playback

To carry out playback with the equipment connected to the **AV/AUX** inputs, set the function selector to **AV/AUX 1** or **AV/AUX 2** as required and set the tape monitor selector to **SOURCE** position.

Set the TV or video monitor to the video input mode to view the picture. Adjust the volume and other controls on the receiver to suit your needs.

### Recording (Dubbing)

Set the tape monitor selector to SOURCE position and function selector to AV/AUX 1, where the source to be recorded is connected.

Then record with the video recorder connected to the AV/AUX 2 terminals on the rear panel. The video signal being recorded can be monitored by the connected TV or video monitor.

For advanced applications, such as combining sound from an audio source with a video signal and recording both on the video cassette recorder connected to the AV/AUX 2 terminals, please refer to the signal flow table shown on page 17. (Note: the audio and video signal supplied to the video recorder is completely unaffected by the volume and balance settings of the receiver).

### HUM AND NOISE

In any high fidelity installation, hum may be caused by the interconnection of a turntable, tuner and amplifier, and speakers as the result of wiring, different grounding or locations of components.

If hum is experienced with your unit, disconnect everything but the speakers from the unit. Plug in the turntable and if hum or howling appears, move the turntable away from the speakers as much as possible.

Note hum may also be induced by defective cable connections or by running the cables too close to strong AC field. When your unit picks up noise during the reception of broadcasts, causes are mostly due to external objects such as fluorescent lamps and house appliances using motor or thermostat, or others that may induce the noise.

Either relocating the unit away from the noise sources or using an improved outdoor antenna may readily solve the problem. In the event you cannot find the cause, consult your dealer or a qualified electrician.

### VOLTAGE SELECTION

#### Not available for U.K., Canada and Scandinavia

The unit is a variable voltage equipment that can run on 120V, 220V or 240V power supply. Your unit should already be preset at the proper voltage for use in your area. However, if you move to an area where the power supply voltage is different, consult your dealer.

### SPECIFICATIONS

Total Harmonic Distortion ...	No more than 0.004% (CD/TUNER, 20 to 20,000Hz)
Intermodulation Distortion... (60Hz:7kHz = 4:1)	No more than 0.004% (CD/TUNER)
Output.....	Headphone 4-16 ohms
Input Sensitivity/Impedance	
PHONO (MM).....	2.5mV/47 kohms
PHONO (MC).....	250 $\mu$ V/180 ohms
CD, TUNER, TAPE 1/2.....	150mV/24 kohms
AV/AUX 1, AV/AUX 2 .....	150mV/24 kohms
Output sensitivity/ Impedance.....	1.0V/330 ohms
Overload Level (THD 0.5%, 1kHz)	
PHONO (MM).....	180mV
PHONO (MC).....	15mV
CD, TUNER, TAPE 1/2.....	5V
AV/AUX 1, AV/AUX 2 .....	5V
Frequency Response	
PHONO .....	20 to 20,000Hz, $\pm$ 0.2dB (RIAA STD)
CD, TUNER, TAPE 1/2....	4 to 100,000Hz, + 0.5dB, - 3dB
AV/AUX 1, AV/AUX 2 .....	4 to 100,000Hz, + 0.5dB, - 3dB
Signal-to-Noise Ratio (IHF A network)	
PHONO (MM).....	80dB
PHONO (MC).....	70dB
CD, TUNER, TAPE 1/2....	95dB
AV/AUX 1, AV/AUX 2 .....	95dB
Power Requirement .....	120V/60Hz, 220V/50Hz, 240V/50Hz or 120, 220, 240V/50-60Hz (switchable) (depending on destinations)
Power Consumption .....	10 watts
Dimensions (overall) .....	430 (W) x 66 (H) x 320 (D)mm 16-15/16" x 2-19/32" x 12-19/32"
Weight (net).....	3.8kg/8.36 lbs.

- Specifications and design subject to possible modification without notice.